

## PATENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner  
 US Department of Commerce  
 United States Patent and Trademark  
 Office, PCT  
 2011 South Clark Place Room  
 CP2/5C24  
 Arlington, VA 22202  
 ETATS-UNIS D'AMERIQUE  
 in its capacity as elected Office

Date of mailing (day/month/year) 13 June 2001 (13.06.01)	
International application No. PCT/GB00/03292	Applicant's or agent's file reference IT/N10170
International filing date (day/month/year) 24 August 2000 (24.08.00)	Priority date (day/month/year) 26 August 1999 (26.08.99)
Applicant FRASER, Lynn, Repsis	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
 19 March 2001 (19.03.01)

☐ in a notice effecting later election filed with the International Bureau on:  
 \_\_\_\_\_

2. The election ☒ was

☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Olivia TEFY Telephone No.: (41-22) 338.83.38
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PCT

REC'D 07 JAN 2002

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference IT/N10170	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB00/03292	International filing date (day/month/year) 24/08/2000	Priority date (day/month/year) 26/08/1999
International Patent Classification (IPC) or national classification and IPC A61K38/00		
Applicant KING'S COLLEGE LONDON et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.


2. This REPORT consists of a total of 7 sheets, including this cover sheet.

- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  19/03/2001	Date of completion of this report  03.01.2002
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Perez, F  Telephone No. +49 89 2399 7338



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/GB00/03292

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, pages:**

1-14 as originally filed

**Claims, No.:**

1-33 as originally filed

**Drawings, sheets:**

1/5-5/5 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/03292

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

### III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application.

☒ claims Nos. 24-29, 31.

because:

☒ the said international application, or the said claims Nos. 24-29, 31 (industrial applicability) relate to the following subject matter which does not require an international preliminary examination (*specify*):  
**see separate sheet**

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for the said claims Nos. .

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

### V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims 1-31

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/03292

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	No:	Claims	32-33
Inventive step (IS)	Yes:	Claims	1-33
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-23, 30, 32-33 (for 24-29, 31 see separate sheet)
	No:	Claims	

2. Citations and explanations  
**see separate sheet**

**Re Item III**

**Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

Claims 24-29, 31 relate to subject-matter considered by this Authority to be covered by the provisions of Rule 67.1(iv) PCT. Consequently, no opinion will be formulated with respect to the industrial applicability of the subject-matter of these claims (Article 34.4(a)(i) PCT).

**Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

Reference is made to the following documents:

- D1: SUZUKI Y ET AL. DEVELOPMENT GROWTH AND DIFFERENTIATION, JP, JAPANESE SOCIETY OF DEVELOPMENTAL BIOLOGISTS, vol. 28, no. SUPPL, 1986, page 78.
- D2: KOEHN F -M ET AL. ANDROLOGIA, vol. 30, no. 4-5, August 1998, pages 207-215.
- D3: FRASER L R. ANDROLOGIA, vol. 30, no. 4-5, August 1998, pages 241-247.
- D4: WO 95 32725 A (QUEEN MARY & WESTFIELD COLLEGE ;VINSON GAVIN PAUL (GB)) 7 December 1995.

**Novelty (Articles 33.1 and 33.2 PCT)**

Prior art describes the effect of calcitonin (D1) and FPP/adenosine (D3) on sperm capacitation, of angiotensin II on acrosome reaction (D2) and of the use of angiotensin II to improve fertilization (D4).

Claims 1-9 cover compositions comprising at least two agents selected from calcitonin, angiotensin II and a modulator of adenosine receptor activity, for medical use. None of the prior art describe such compositions which are therefore novel.

Claims 10-23 cover sperm preparation containing at least two agents selected from calcitonin, angiotensin II and a modulator of adenosine receptor activity. None of the prior art describes such sperm preparation. It shall be noted, with regard to the description

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB00/03292

page 11 lines 4-6, that a sperm preparation for in vitro fertilization or intrauterine insemination involve washing the sperm free of seminal plasma and hence of the hormone therein. This excludes natural untreated sperm (which contains these 2 components) from the scope of the claims.

Claims 24-29 cover the use of medications, composition or sperm preparation for promoting fertility. Novelty is acknowledged for claims 24-29.

Claims 30-31 cover the use of angiotensin II for (the preparation of a medicament for) stimulating the capacitation of mammalian sperm. D4 describes the use of Angiotensin II for increasing spermatozoa velocity and mobility, resulting in improved fertilisation but does not mention the stimulation of the capacitation. Novelty is acknowledged for claims 30-31.

Claims 32-33 cover compositions comprising angiotensin II. Such compositions are not novel.

Inventive Step (Articles 33.1 and 33.3 PCT)

Whereas the use of calcitonin, FPP/adenosine and angiotensin II individually is known for improving fertilization, the prior art does not suggest to use them in combination. Moreover, the present application showed that the combination results in a synergistic effect between the different compounds. Therefore, an inventive step can be acknowledged for novel claims.

Industrial applicability (Articles 33.1 and 33.4 PCT)

Claims 1-23, 30, 32-33 cover combined medications, compositions, sperm preparation and their use in the preparation of a medicament and are therefore susceptible of industrial application.

For the assessment of the present claims 24-29, 31 on the question whether they are industrially applicable, no unified criteria exist in the PCT Contracting States. The patentability can also be dependent upon the formulation of the claims. The EPO, for example, does not recognize as industrially applicable the subject-matter of claims to the

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/GB00/03292

use of a compound in medical treatment, but may allow, however, claims to a known compound for first use in medical treatment and the use of such a compound for the manufacture of a medicament for a new medical treatment.



## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>IT/N10170</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/GB 00/ 03292</b>	International filing date (day/month/year) <b>24/08/2000</b>	(Earliest) Priority Date (day/month/year) <b>26/08/1999</b>
Applicant  <b>KING'S COLLEGE LONDON</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.



None of the figures.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Present claims 1, 2 and 10 relate to a compound defined by reference to a desirable characteristic or property, namely a modulator of adenosine receptor activity or a specific adenosine receptor agonist.

The claims cover all compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the compound by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the compounds, adenosine, fertilization promoting peptide (FPP) and thyrotrophin (TRH), as mentioned in the description page 3, line 20-24 and in claim 2.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

## INTERNATIONAL SEARCH REPORT

International Application No

/GB 00/03292

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K38/08 A61K38/23 C12N5/06 A61K35/52 A61P15/08  
 //(A61K38/23,38:06,31:7052),(A61K38/08,38:06,31:7052),(A61K38/23,  
 38:08,38:06,31:7052)

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, PAJ, WPI Data, MEDLINE, CANCERLIT, CHEM ABS Data, EMBASE, SCISEARCH

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>SUZUKI Y ET AL: "EFFECTS OF CALMODULINE AND CALCITONIN ON CAPACITATION OF GUINEA PIGSPERMATOZOA"            DEVELOPMENT GROWTH AND DIFFERENTIATION,JP,JAPANESE SOCIETY OF DEVELOPMENTAL BIOLOGISTS,,            vol. 28, no. SUPPL, 1986, page 78            XP000915276            ISSN: 0012-1592            abstract</p> <p style="text-align: center;">--- -/--</p>	1-29

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

\* Special categories of cited documents :

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

14 February 2001

Date of mailing of the international search report

21/02/2001

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
 NL - 2280 HV Rijswijk  
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
 Fax: (+31-70) 340-3016

Authorized officer

Noë, V

## INTERNATIONAL SEARCH REPORT

International Application No

/GB 00/03292

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>KOEHN F -M ET AL: "Effect of angiotensin converting enzyme (ACE) and angiotensins on human sperm functions."  ANDROLOGIA,  vol. 30, no. 4-5, August 1998 (1998-08),  pages 207-215, XP000979534  ISSN: 0303-4569  page 207, column 1, last paragraph  page 209, column 1, paragraph 2  page 211, column 2, paragraph 1  page 213, column 2, last paragraph  page 214, column 1, last paragraph  ---</p>	1-33
A	<p>FRASER L R: "Modulation of mammalian sperm function by fertilization promoting peptide (FPP)."  ANDROLOGIA,  vol. 30, no. 4-5, August 1998 (1998-08),  pages 241-247, XP000979537  ISSN: 0303-4569  abstract  page 242, column 1, paragraph 2 -page 243,  column 2, paragraph 1  page 243, column 2, paragraph 3; figure 2  page 246, column 1, last paragraph  ---</p>	1-29
A	<p>WO 95 32725 A (QUEEN MARY &amp; WESTFIELD COLLEGE ;VINSON GAVIN PAUL (GB))  7 December 1995 (1995-12-07)  the whole document  -----</p>	1-33

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

/GB 00/03292

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9532725 A	07-12-1995	AU 2534595 A	21-12-1995
		EP 0760672 A	12-03-1997
		US 6011015 A	04-01-2000
-----			

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
1 March 2001 (01.03.2001)

PCT

(10) International Publication Number  
**WO 01/13932 A3**

(51) International Patent Classification<sup>7</sup>: **A61K 38/08**,  
38/23, C12N 5/06, A61K 35/52, A61P 15/08 // (A61K  
38/23, 38:06, 31:7052) (A61K 38/08, 38:06, 31:7052)  
(A61K 38/23, 38:08, 38:06, 31:7052)

(21) International Application Number: PCT/GB00/03292

(22) International Filing Date: 24 August 2000 (24.08.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
9920262.4 26 August 1999 (26.08.1999) GB

(71) Applicant (for all designated States except US): **KING'S  
COLLEGE LONDON** [GB/GB]; The Strand, London  
WC2R 2LS (GB).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **FRASER, Lynn**,  
Repsis [GB/GB]; 7 The Highlands, Rickmansworth,  
Herts. WD3 2EW (GB).

(74) Agent: **TOLLETT, Ian**; Williams, Powell & Associates,  
4 St. Paul's Churchyard, London EC4M 8AY (GB).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,  
DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,  
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,  
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,  
TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian  
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European  
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,  
IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG,  
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:  
— with international search report

(88) Date of publication of the international search report:  
2 August 2001

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: STIMULATION OF SPERM FUNCTION

(57) Abstract: A combined medication for increasing the capacitation of mammalian sperm is described, comprising two or more agents each of which is selected from the groups consisting of (1) calcitonin, (2) angiotensin II, and (3) a modulator of adenosine receptor activity, which may be fertilization promoting peptide (FPP) or adenosine or a specific adenosine receptor agonist. A preferred combination is calcitonin, FPP (or FPP/adenosine), and angiotensin II. The agents may be formulated as (1) a cream, jelly or pessary containing from 100 nM to 100µM FPP or from 10 µM to 10 mM adenosine, from 5 ng/ml to 5 µg/ml salmon calcitonin or from 200 ng/ml to 200 µg/ml of human calcitonin and from 1 nM to 1 µM angiotensin II, or (2) as a sperm preparation for use in the treatment of human infertility containing from 12.5 to 500 nM FPP or from 0.5 µM to 100 µM adenosine, from 0.5 to 150 ng/ml salmon calcitonin or from 2 ng/ml to 1000 ng/ml of human calcitonin, and containing from 0.1 to 100 nM angiotensin II. For agricultural use a sperm preparation may contain concentrations of added FPP from 12.5 nM to 1 µM or adenosine from 0.5 to 100 µM, salmon calcitonin from 0.5 to 400 ng/ml or porcine calcitonin from 2 to 1000 ng/ml, and angiotensin II from 0.1 to 100 nM. The use of angiotensin II alone for the preparation of a medicament for stimulating the capacitation of mammalian sperm is also described.

WO 01/13932 A3

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 00/03292

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K38/08 A61K38/23 C12N5/06 A61K35/52 A61P15/08  
 //(A61K38/23, 38:06, 31:7052), (A61K38/08, 38:06, 31:7052), (A61K38/23,  
 38:08, 38:06, 31:7052)

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, PAJ, WPI Data, MEDLINE, CANCERLIT, CHEM ABS Data, EMBASE, SCISEARCH

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

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A	SUZUKI Y ET AL: "EFFECTS OF CALMODULINE AND CALCITONIN ON CAPACITATION OF GUINEA PIGSPERMATOZOA" DEVELOPMENT GROWTH AND DIFFERENTIATION, JP, JAPANESE SOCIETY OF DEVELOPMENTAL BIOLOGISTS,, vol. 28, no. SUPPL, 1986, page 78 XP000915276 ISSN: 0012-1592 abstract <div style="text-align: center;">--- -/--</div>	1-29

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

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- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

14 February 2001

Date of mailing of the international search report

21/02/2001

Name and mailing address of the ISA

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 Fac. (+31-70) 340-3016

Authorized officer

Noë, V

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB 00/03292

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>KOEHN F -M ET AL: "Effect of angiotensin converting enzyme (ACE) and angiotensins on human sperm functions." ANDROLOGIA, vol. 30, no. 4-5, August 1998 (1998-08), pages 207-215, XP000979534 ISSN: 0303-4569 page 207, column 1, last paragraph page 209, column 1, paragraph 2 page 211, column 2, paragraph 1 page 213, column 2, last paragraph page 214, column 1, last paragraph -----</p>	1-33
A	<p>FRASER L R: "Modulation of mammalian sperm function by fertilization promoting peptide (FPP)." ANDROLOGIA, vol. 30, no. 4-5, August 1998 (1998-08), pages 241-247, XP000979537 ISSN: 0303-4569 abstract page 242, column 1, paragraph 2 -page 243, column 2, paragraph 1 page 243, column 2, paragraph 3; figure 2 page 246, column 1, last paragraph -----</p>	1-29
A	<p>WO 95 32725 A (QUEEN MARY &amp; WESTFIELD COLLEGE ;VINSON GAVIN PAUL (GB)) 7 December 1995 (1995-12-07) the whole document -----</p>	1-33



## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

## Continuation of Box I.2

Present claims 1, 2 and 10 relate to a compound defined by reference to a desirable characteristic or property, namely a modulator of adenosine receptor activity or a specific adenosine receptor agonist. The claims cover all compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the compound by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the compounds, adenosine, fertilization promoting peptide (FPP) and thyrotrophin (TRH), as mentioned in the description page 3, line 20-24 and in claim 2.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 00/03292

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9532725 A	07-12-1995	AU 2534595 A	21-12-1995
		EP 0760672 A	12-03-1997
		US 6011015 A	04-01-2000
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